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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/502,028

**Applicant(s)**

HEATHCOTE, IAN

**Examiner**

Thomas Diaz

**Art Unit**

4171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/02)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_
- Paper No(s)/Mail Date 07/20/2004.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 24 and 27 starting at page 8 line 13 of the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

2. Claim 6 is objected to because of the following informalities: Applicant refers to "the carrier member..." which does not have enough antecedent basis. The examiner suggests changing "the" to "a" would correct this problem. Appropriate correction is required.

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3. Claim 8 is objected to because of the following informalities: The applicant claims a "...traversing number..." which is incorrect. It appears the applicant is trying to claim the traversing member from claim 7. Appropriate correction is required.
4. Claim 22 is objected to because of the following informalities: Applicant recites the limitation "the distance..." without providing sufficient antecedent basis. The examiner suggests changing "the" to "a" to correct the problem. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-25, 27-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

***Regarding claim 1 and 14,***

The applicant invokes 112<sup>th</sup> sixth paragraph in regards to a "bearing means for..." and "two abutment means for..." which are not clearly stated in the specification. Thus, it is unclear to the examiner what structure in the specification the applicant is referring to. For purposes of examination the examiner will make the broadest reasonable interpretation of what these elements mean.

Claims 2-25, and 28 are dependent on claim 1 and therefore have the same problems.

***Regarding claim 5,***

Claim 5 is unclear because the applicant refers to "the carrier member..." but provides no antecedent basis for this structure. Later in the claim the applicant refers to "a carrier member". It is also unclear how many carrier members the applicant is referring to and trying to claim.

***Regarding claim 15,***

Claim 15 is unclear because the applicant is reciting structure, "the traversing member", which does not have antecedent basis in claim 1. For purpose of examination the examiner will interpret the limitation to be related to the traversing element claimed in other separate dependent claims.

***Regarding claim 16,***

The applicant has made an improper dependent claim because claim 12 and subsequent dependent claims do not provide sufficient antecedent basis for the "travel path limiting element". In this claim the travel path limiting element is further modified with limitations which add to the confusion.

***Regarding claim 28,***

The applicant recites that "the travel path limiting element is a sleeve located on the shaft." There is not sufficient antecedent basis for "the shaft" in the claims that claim 28 depends on. It is therefore unclear what shaft the applicant is referring to.

**Regarding claims 3, 5, 6, 8, 12, 17, 18, 21, 22, 27**

The applicant refers to "the direction" throughout all of these claims and it is unclear what direction the applicant is referring to. More description is required to fully understand what the applicant is claiming in regards to this. For purpose of examination the examiner will not consider the limitations reciting a direction in these claims until the applicant has made appropriate amendments.

**Double Patenting**

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thornton*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1, 6,7,17,18,21-24,26 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-19 of copending Application No. 10501821. Although the conflicting claims are not

identical, they are not patentably distinct from each other because the conflicting claims are directed towards a gear shifting mechanism which as interpreted by the examiner includes most of the features and structure of the gear shifting cassette unit claimed in the current application.

For example, claims 1,6,7 of the current application are directed to a gear shifting cassette unit which comprises a housing, a traversing member and a coupling. This is clearly recited in the copending application claims in which the applicant claims a shift selector element corresponding to the coupling and a support which holds the selector element along with other analogous structure to the gear shifting cassette such as a pressure spring, blocking element, and shift rails. The copending application make no mention of a housing, however, it would be obvious that such a structure would have a housing and also read in light of the specification it is clear that the inventions are appear identical in structure.

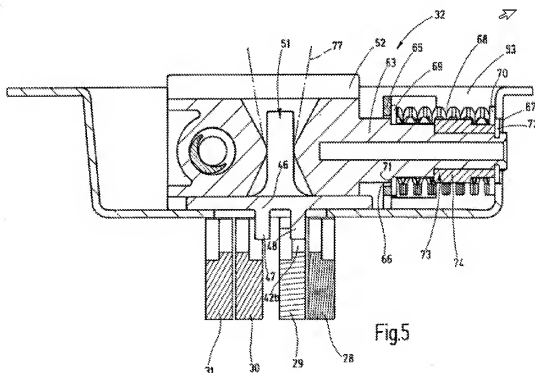
Claims 17, and 18 of the current application are directed towards a blocking member for blocking the non-selected shift rails from moving which corresponds to the blocking element discussed in claims 13,14, and 15 of the copending application, which also performs the same function.

Claims 21-24 of the current application are directed towards shift elements and distances between the shift elements and the shift rails and how the shift elements engage the shift rails. Similar structure and relationships of distances are claimed throughout claims 1-8 of the copending application.

Claim 26 of the current application is directly claiming a gear shifting mechanism comprising at least two shift rails which have a shift rail connecting member and a cassette unit. As discussed above, a lot of analogous structure of this cassette unit is claimed in the copending application along with the shift rails and shift selector elements throughout the claims, in particular, claims 1,13,15,16,17,18, and 19.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Below are some figures from both the current application and the copending application.



**Figure i- Copending application figure.**



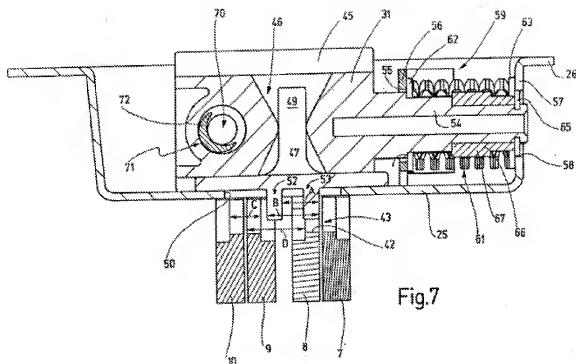


Fig.7

Figure ii- Current application.

**Claim Rejections - 35 USC § 102**

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1, 2, 4-7, 15, 21, 26 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Willford et al. (US patent 5566579), see figures below.

**Regarding claim 1,**

The applicant claims:

- a gear shifting cassette unit corresponding to the structure contained within the shift housing (fig. 1, 13) which is capable of operating in a transmission comprising at least two shift rails,
- a cassette housing corresponding to the housing disclosed in the prior art (fig.1, 12 and 13),
- a bearing means which corresponds to either a shaft element (fig.1, 31) or piston element (fig.2, 51 or 50) which both are capable of movably supporting at least one shift element which engages shift rails,
- said cassette housing comprising a coupling which corresponds to either flange element (fig.2, 43) or snap ring (fig.2, 42), which are used to connect a shifting element to a shift finger.

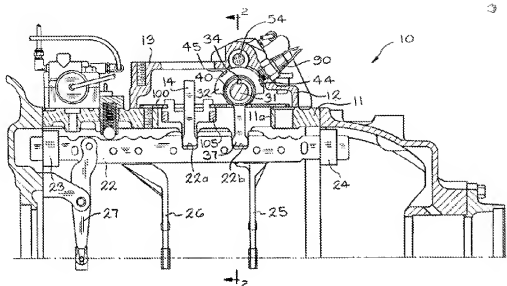


FIG. 1

Figure iii- Willford et al.'s device.

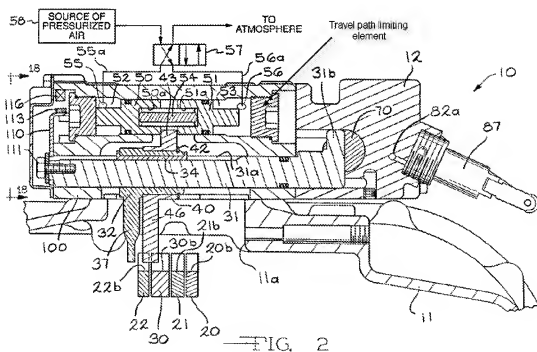


FIG. 2

Figure iv- Willford et al.'s device.

***Regarding claim 2,***

The applicant recites a 112th sixth paragraph limitation by reciting a "mounting means for fixedly securing the housing on a transmission housing..." The applicant discloses a flange on the cassette unit housing as the fastening means. The restraining plate (fig. 1, 100) acts as an equivalent to the mounting means disclosed by applicant for fixedly securing the respective housings together.

***Regarding claim 4,***

The applicant claims a shift element which corresponds to shift member (fig.2, 32), which protrudes through an opening in the housing for engaging the shift rails.

***Regarding claim 5,***

The applicant claims said coupling from claim 1 being provided on a carrier member. The carrier member corresponds to the shaft element (fig.1, 31). It is understood that this shaft element could also act as a bearing element as described in claim 1.

***Regarding claim 6,***

The applicant claims said bearing means from claim 1 comprising a traversing member which corresponds to the piston element (fig.2, 50 or 51) located in the cassette housing and which supports a carrier member (fig.2, 43). This carrier member is part of the manual shift element and could also correspond to the coupling member.

***Regarding claim 7,***

The applicant claims said traversing member comprising two opposite guiding surfaces which correspond to the two opposite surfaces of the piston element (fig.2, 51) which are in sliding engagement with inner surfaces of the casing facing each other.

***Regarding claim 15,***

The applicant claims a travel path limiting element being associated with a traversing member which corresponds to the structure labeled by the examiner in figure 2. This structure limits the before said traversing member (fig.2, 51 or 50) from moving laterally more than a certain distance.

***Regarding claim 21,***

Applicant claims two shift elements having the shape of tongues which extend into the shift rails and are spaced apart from each other. These shift elements correspond to the shift elements of the prior art (fig.2, 37 and 46) which have the shape of tongues and extend into the shift rails and are also spaced apart from each other.

***Regarding claim 26,***

Applicant claims a gear shifting mechanism (fig. 1) comprising at least two shift rails and a cassette unit. The shift rails have a connecting member and can be moved out of a neutral position to engage a gear. The prior art teaches at least two shift rails (fig.2, 20 and 21) which can be moved out of a neutral

position to engage a gear (col.4, lines 41-45). As discussed above, a cassette unit is included within the housing (fig.1, 13).

***Regarding claim 27,***

Applicant claims a transmission comprising:

- a gear shifting mechanism comprising an actuation unit which has an actuation unit housing capable of being mounted on the transmission housing. The actuation unit also has a shift finger which is movable in 2 axial directions for both selecting a shift rail and moving it.

The prior art teaches a gear shifting mechanism which an actuation unit seen in figure 2 and figure 4 with which has a housing (fig.2, 12) mounted on the transmission housing. The actuation unit comprises a shift finger (fig. 2, 37 or 46). This shift finger is capable of moving in both axial directions in order to both select a shift rail and move a shift rail as explained in detail in the prior art.

- a gear shifting cassette housing having a mounting means for fixing the housing together with the transmission housing. The details of the structure related to these limitations were described above in claim 1 and claim 2,
- a traversing member located inside the cassette housing which corresponds to the piston element (fig.2, 50 or 51),

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- a carrier member corresponding to the element (fig.2, 43) which is supported by the traversing member and being provided with the shift elements (fig. 2, 32 and 40). These shift elements protrude through an opening the casing as depicted in fig. 1 and fig. 2. The carrier member has a coupling as discussed above corresponding to the element (fig.2, 42) which connects the carrier member to the shift finger (fig.2, 37).

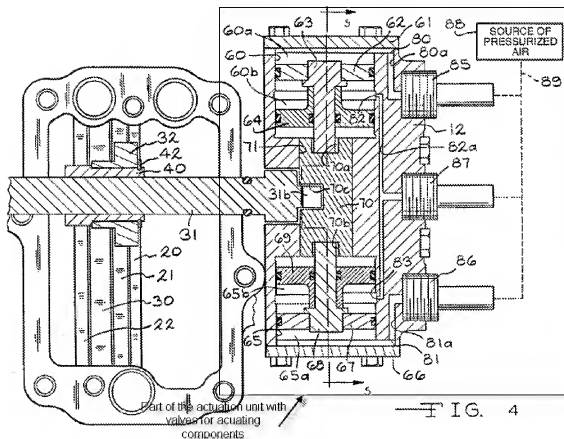


Figure v- Willford et al.'s device.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willford et al. (US patent 5566579).

Applicant claims the following elements of a gear shifting cassette unit which correspond to the structure disclosed by Willford et al.:

***Regarding claim 2 and 3,***

Applicant claims a mounting means for the housing of the cassette unit and the mounting means being a flange which is clamped to the surface of the transmission.

Willford et al. teaches in col. 4, lines 12-15 that the shift housing is secured to the casing of the transmission about an opening (fig.1,11a) by any conventional means.

Willford et al. is silent to explicitly disclosing a flange for securing the housing. However, the examiner takes the position that a flange constitutes a form of conventional means where a housing can be clamped to another housing or welded to it. Flanges have been used on a lot of things such as pipes and other housing structures in order to provide a place for attachment. Therefore, it would have been obvious to one of ordinary skill in the art to use a flange as a



conventional means of securing the housing taught by Willford et al. to the casing of the transmission.

13. Claims 8-14, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willford et al., as applied in claims 1 and 6, in view of Meyers et al. (US patent 4892001).

Willford et al. teaches all the elements disclosed above for claims 1 and 6 and further teaches a port (fig.2, 55) which acts as a biasing device and slit-like opening in the transmission casing (fig. 2, 11a).

Willford et al. fails to teach the elements claim in claims 8,10-14,17,18 and 20.

Meyers et al. teaches the following elements.

***Regarding claim 8,***

Applicant claims a traversing member comprising an oblong opening with a carrier member therein which corresponds to the interlock bracket (fig.3, 50) which comprises an opening (fig.6, 52) with a carrier member (fig.3, 13) located therein.

***Regarding claim 9,***

Applicant claims a biasing device associated with the traversing member which corresponds to the port discussed above that Willford et al. teaches. In addition, the biasing device corresponds to the springs (fig.3, 67 and 72) which are associated with the interlocking bracket discussed above.

***Regarding claim 10,***

Applicant claims the biasing device comprising a spring which urges the traversing member into a desired position which was disclosed by Meyers et al. and discussed above.

***Regarding claim 11,***

Applicant claims that the spring is a compression spring which was disclosed by Meyers et al. in col. 8, lines 56-60 where Meyers et al. discusses how the springs are compressed during use. This can only happen if the spring is a compression spring.

***Regarding claim 12,***

Applicant claims the traversing member comprising a shaft which carries the compression spring. Meyers et al. teaches a interlocking pin (fig.3, 68) which can be considered a shaft and carries the spring (fig.3, 67).

***Regarding claim 13,***

Applicant claims the compression spring being clamped between two pressure disks located on the shaft between respective stop means. Meyers et al. teaches an enlarged head (fig.3, 70) which the examiner interprets as a pressure disk which is located on the shaft or pin between the stopping means (fig.3, 71 and 63).

***Regarding claim 14,***

Applicant claims that the casing of the cassette unit comprises two abutment means for limiting the travel of the spring means in opposite directions.

Meyers et al. teaches the shoulder (fig.3, 71) and the washer (fig.3, 66) which limits the travel of the small spring (fig.3, 72).

***Regarding claim 17,***

Applicant claims a traversing member comprising a blocking member for blocking the movement of all non-selected shift rails. Meyers et al. discloses end portions (fig.4, 56) of the interlocking bracket which prevent the movement of shift rails depending on the selection made (col.6, lines 42-48).

***Regarding claim 18,***

Applicant claims the blocking member comprising at least one cutout for unblocking the shift rail being selected. Meyers et al. teaches a cut out as depicted in both figure 3 and figure 4 through which the shift finger engages the shift rail being selected.

***Regarding claim 19,***

Applicant claims a slit-like opening in the casing for the transmission which was already disclosed by Willford et al. above. Furthermore, Meyers et al. teaches an opening in the casing (fig.3, 11) as depicted in figure 3 through which the blocking member or end portions extend through.

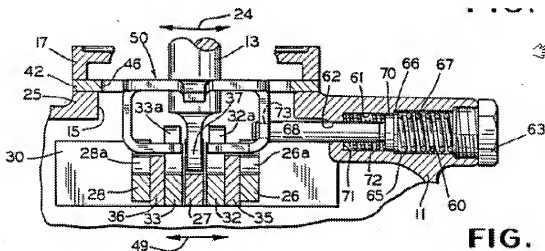
***Regarding claim 20,***

Applicant claims that the blocking member is a one piece unit with the traversing member. Meyers et al. teaches as depicted in figure 4 that the interlocking bracket (traversing member) is a one piece unit with the end portions (blocking members).

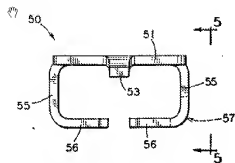
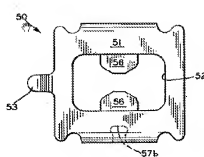
According to Meyers et al. interlocking assemblies are used in transmissions for preventing the movements of unselected shift rails. This is also disclosed by the applicant in the background section. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Willford et al. with the teachings of Meyers et al. to include an interlocking assembly as described previously in claims 8-14 and 17-20. This interlocking assembly is also beneficial because it allows for urging the shift lever toward a centered position and providing tactile feedback to an operator of the shift lever (col.2, lines 44-55).

Regarding claim 13 in particular, Meyers et al. only discloses one pressure disk however, it would have been obvious to include more than one of the same pressure disk on the shaft if needed since duplication of parts does not hold patentable weight. In the instance of the prior art, only one pressure disk was necessary since the other side of the spring was limited by a shoulder (fig.3, 71).

Below is a figure of the prior art Meyers et al.:



**FIG. 3**

**FIG. 4****FIG. 6**

14. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willford et al. in view of Okubo et al. (US patent 4608877).

Willford et al. teaches a gear shifting cassette unit as discussed above which is provided with two tongues for selecting and connecting to the connecting member of the shift rails. Willford et al. discloses four shift rails which could be engaged by these tongues.

Specifically in regards to the following claims:

***Regarding claim 22,***

Applicant claims the distance provided between the tongues being greater than the width of the connecting member on the shift rail, which Willford et al. fails to teach.

***Regarding claim 23,***

Applicant claims two of the shift rails arranged close together such that if one tongue engages the connecting member of one shift rail, the other connecting

member of the other shift rails remains in the space between the tongues, which Willford et al. fails to teach

***Regarding claim 24,***

Two of the shift rails being arranged in a far distance so that if one tongue is in registration with the connecting element of a selected shift rail, the other tongue is not in registration with the connecting element of the other shift rail. Willford et al. teaches this limitation as depicted below in figure 3. When tongue (fig.3, 37) is in registration with the connecting element of shift rail (fig.3, 22b), the other tongue (fig.3,46) is not in registration with the connecting element of shift rail (fig.3, 20b)

Okubo et al. teaches the shift rails (fig.1, 1,2,3,4) and the shift fingers (fig.1, 12 and 13) which engage the connecting elements of these shift rails.

***Regarding claim 22,***

Okubo et al. teaches the distance between the tongues or shift fingers being greater than the width of the connecting elements of the shift rails (fig.1, 5a) for the purpose of providing a multi-step speed changing operation.

***Regarding claim 23,***

Okubo et al. teaches the shift rail (fig.1, 4) being in between the tongues (fig.1, 13 and 12) where only one of the tongues is selecting a shift rail for the purpose of providing simple construction between the gear shift shaft, gear shift rods and clutch. (col.4, lines 65+ and col.5, lines 1-7).

Therefore it would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the teachings of Willford et al. to include the

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relationship of distances between the tongues and the shift rails in order to provide a simple construction of a gear shift device. In particular, to provide a simple construction for a transmission which is suitable for multi-step speed changing operations as described in Okubo et al.

Furthermore, the examiner notes that varying the distances between the tongues and the connecting members would be obvious in optimizing the type of transmission being made. Transmissions with shift rails always function in a similar manner where a selector member engages only one shift rail for the purpose of generating certain gear ratios from the transmission. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955)

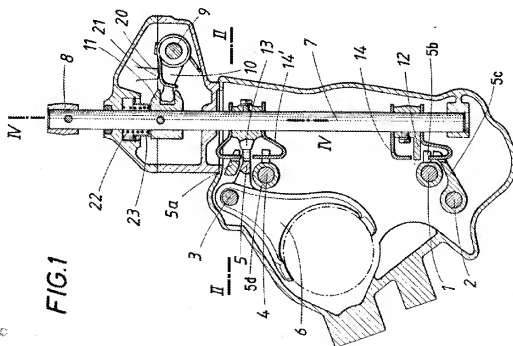


Figure vi- Okubo et al.'s figure.

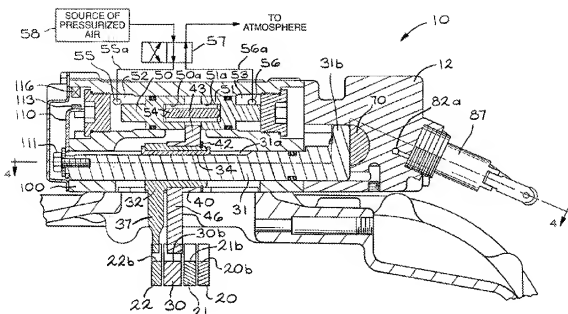


FIG. 3

Figure vii- Willford et al.'s figure.

15. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Willford et al. in view of Meyers et al. and Kagi (US patent 3572770).

Regarding this claim, applicant claims that the travel path limiting element of claim 15 is a sleeve located on a shaft.

Willford et al. teaches a travel path limiting element as described above when analyzing claim 15.

However, Willford et al. fails to teach that this element is a sleeve located on a shaft.



Meyers et al. teach a shaft being part of the traversing member as discussed in the above in the combination of references made for claims 8-14, and 17-20.

Meyers et al. also teaches an enlarged head portion of the shaft (fig.3, 70) which could be interpreted as a sleeve.

However, since the enlarged head portion is part of the shaft the examiner will add the additional reference, Kagi, which shows a mounting of a sleeve on a tube or shaft.

Kagi teaches a sleeve (fig.1, 3) shown below, which is used to limit the movement of the shaft (fig.1, 1).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kagi with the combination made earlier of Willford et al. and Meyers et al. in order to provide the shaft element taught by Meyers et al. with a sleeve as the travel path limiting element.

Using a sleeve as a travel limiting element is beneficial because it provides a simple, cost effective way of limiting the travel of other members. Sleeves are also well known and have been in a number of different applications such as steering shafts, plumbing, etc.

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art cited but not made of record relates to similar

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transmission devices and similar ideas of converting a manual transmission into an automatic transmission.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Diaz whose telephone number is (571)270-5461. The examiner can normally be reached on Monday-Thursday 7:30am-6:00pm, Friday's off..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on (571)272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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